

ACTIVITY: **BRANCH OUT**

Overview

Trees are important resources that provide oxygen, homes for animals, scenic beauty, building materials, and paper. People can exhibit good citizenship and responsible, caring behavior by conserving resources, recycling paper, and planting trees to protect and improve their environment.

Objectives

Students will be able to

1. observe trees through the seasons and describe the changes over time;
2. graph and chart progress towards a funding goal and establish a recycling project for the school;
3. celebrate Earth Day or Arbor Day by planting a tree in the school yard or community;
4. exhibit the character traits of responsibility and good citizenship by caring for their tree as a way to improve the environment;
5. understand the importance of stewardship and how national parks protect trees and other resources.

Background

The average American uses seven trees a year. It takes an entire tree to make a stack of newspapers just three feet high. Approximately 36 acres of trees are cut each week just to make the Sunday *New York Times*! A tree will reduce carbon dioxide in the air, produce oxygen, provide protection and homes for animals, and serve as a source of products used by people. Trees also provide shade and beauty for recreational enjoyment. By respecting our environment through reducing waste, reusing items, refusing what we don't need, and recycling, every person can make a difference!



SCIENCE: Life Processes – Resource Conservation

CHARACTER: Citizenship, Responsibility, Caring

GRADE LEVEL

Kindergarten – 1st Grade

VIRGINIA STANDARDS OF LEARNING

Math: K.13, K.15, 1.18, 1.19

Science: K.1, K.2, K.6, K.8, K.9, K.10, 1.1, 1.4

English: K.1, K.2, K.11, 1.2, 1.3, 1.11, 1.12

LENGTH/DURATION

This unit should be started in the autumn of the year and continued periodically until late spring.

MATERIALS

construction paper shapes, clipboards, 8 1/2 x 11 paper, file folder for each student, crayons or paint, paper for posters, books: *Brother Eagle, Sister Sky* and *The Shape of Things* (see Resources and References), newspapers, parent volunteers, funds to purchase tree(s), representative from a plant nursery

VOCABULARY

environment, conservation, deciduous, recycle, observation, graph, respect, citizenship, responsibility, caring, stewardship

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LESSON

Motivational Activity

Introduce or review the concept of shapes in our natural world by reading and discussing the book *The Shape of Things*. Have students observe shapes in the classroom, then draw pictures of simple objects using circles, squares, triangles, and rectangles. Encourage students to share their pictures and compare them with familiar objects at school or in the neighborhood to identify similarities in patterns and shapes.

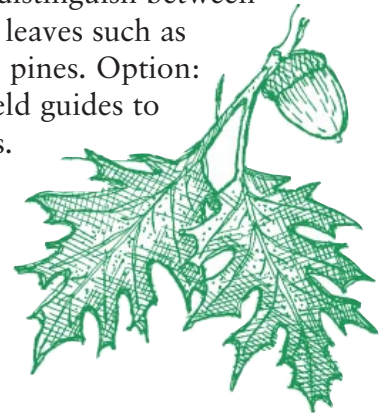
Activities

1. Have students use cutout patterns of circles and rectangles to create pictures of trees. Take the pictures outside and observe the shapes of trees in the schoolyard. Do the pictures look like the live trees? Why or why not? Did the children create “lollipop trees”? Explore a tree – the trunk, branches, twigs, and leaves or needles – using the senses of looking, smelling, listening, and touching. Use dramatic play to create the shape of a variety of trees.



In the autumn, have the class choose one large deciduous tree in the schoolyard to observe. Discuss the natural changes that take place in autumn. Have students use crayons or paints to illustrate the tree. Save these pictures to include in a student-made book about seasons. The students will draw a picture of this same tree in winter and again in spring and compare the differences. They can dictate sentences to go with the pictures. Read the sentences aloud to initiate discussion and determine understanding.

2. Read aloud *Brother Eagle, Sister Sky*. Ask, “What can we do to make a difference? How will we achieve this?”
3. Identify the parts of plants and discuss why plants and trees are important in our world. Develop a plan to plant a tree (or other seedling) in the schoolyard or community. Obtain permission for the planting first. Determine which native trees are recommended for your school’s geographic region (refer to *Common Forest Trees of Virginia* listed in the resources). Determine what kind of tree will be planted and where to plant it. Ask, “Where will we get the tree? Will the tree cost money and how much? How will we pay for it? Who will care for the tree once it is planted?”
4. Investigate and begin to identify various types of trees. Take a walk to a park or around the school neighborhood. Help students learn to distinguish between common types of leaves such as maples, oaks, and pines. Option: use simple tree field guides to help identify trees. Have students press and mount a variety of identified leaves for colorful autumn collages.
5. Take a field trip to a plant nursery. Working with a salesperson, have the students select the appropriate native tree (or trees) to plant at the school. Determine the total funds needed to make the purchase. Suggest that the class



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start a newspaper drive to raise the money for the trees (obtain the school's approval beforehand). Students would collect old newspapers and take them to a local recycling center.



Contact a recycling center and determine the amount paid for each pound of newspaper. **Note:** Recycling centers often pay one cent per pound of newspaper. Some recycling centers do not accept less than 200 pounds. Calculate the total amount of newspapers to collect in order to earn the needed funds. Share the amount goal with the students.

Plan for the collection, storage, and delivery of the newspapers and begin the project! Enlist the help of interested parents. Remind the students of the additional benefits of recycling newspapers –

the fact that each tree saved is a beautiful “gift” to our world.

6. Create a chart to advertise and illustrate the class's fund-raising goal. This could be in the form of a thermometer that will “blow its top” when the goal is reached! Students could also create a graph to chart the date and number of pounds as newspapers are collected. Allow the children to sign their names on the chart to show that they will work hard to accomplish their goals.
7. Have the children create posters to advertise their plan and to generate support for their newspaper drive. They might dictate/write and illustrate friendly letters to their parents and school administrators to share their enthusiasm for the project.
8. Schedule a field trip around Earth Day or Arbor Day (both in April) to a recycling center. Enlist parents or adult volunteers to help deliver the collected newspapers for recycling. Use the money to purchase the selected native tree (or trees) from the plant nursery. Large trees can be delivered. Ask the nursery staff to demonstrate how to properly plant the tree. Have the students assist, if possible.
9. Students should contribute to the continuing care of the new planting(s). If this is done each year, the students will observe, through time, the creation of a small park-like area in the schoolyard or community. They will see the results of their responsible, caring, citizenship and environmental stewardship.

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10. Visit or study a nearby national park or other natural area that preserves and protects trees and forest habitats. Have the students determine who is responsible for taking care of the trees and plants in the park. Ask the students what their role and responsibility is to help take care of the park.
2. Students will demonstrate knowledge of the skills necessary to create and read a graph.
3. Students will be able to demonstrate gained knowledge of trees through leaf identification. Suggested inclusions: maple, oak, and pine.



4. Students will be able to verbalize several reasons for planting and protecting trees and explain how recycling newspaper helps to preserve natural resources. They should understand the value of good citizenship, responsibility, and a caring attitude.

Going Further

1. Create a “Word Tree.” Outline a large shape of a tree on the blackboard or on bulletin board paper. Have students list parts of a tree or adjectives describing trees and use them to fill in the shape. They might also draw small pictures.
 2. Contact the Virginia Department of Forestry, your local Soil and Water Conservation District, or The National Arbor Day Foundation to obtain tree seedlings for each student to plant at home. Ideally this would occur on the day the tree is planted at school so the students will know how to properly plant and care for a tree.
 3. Establish a school-wide plan to recycle aluminum cans or other reusable materials.
1. Evaluate the students’ abilities to represent, through creative dramatics with self-made props, the changes a healthy, deciduous tree makes during each season. Example: 1 = student is able to pose like a tree, 2 = student is able to pose like a tree and demonstrate that seasonal changes occur, 3 = student is able to pose like a tree, demonstrate that seasonal changes occur, and show what healthy trees need to survive.

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Related Subject Activities

1. Reading - Read a book about Helen Keller and use a blindfold while exploring a tree. Discuss the way a tree feels, smells, and “sounds.” (Could it be an animal habitat in which various animals make their sounds of communication?) Can the students find and identify their favorite tree within a small area by using senses other than sight?
2. Language Arts - Write a letter to:
The National Arbor Day Foundation
Arbor Lodge 100
Nebraska City, NE 68410
Request age-appropriate information about trees and suggested activities students might do to protect and preserve trees.
3. Phonics - Create a list of words that rhyme with “tree.”
4. Art - Take pictures of a tree in the schoolyard and post them by the corresponding month.



Resources and References

Common Forest Trees of Virginia: How to Know Them. Virginia Department of Forestry, 2001.

Jeffers, Susan J. *Brother Eagle, Sister Sky.* Penguin Putnam, 1991.

Dodds, Dayle Ann. illus: Julie Lacome. *The Shape of Things.* U.S.A.: Scott Foresman, 1996.

Javna, John. *50 Simple Things Kids Can Do to Save the Earth.* New York: The Earth Works Group. Andrews and McMeel, 1990.

Kricher, John C., and Gordon Morrison. *Ecology of Eastern Forests: Peterson Field Guide.* New York: Houghton Mifflin Co., 1988.

Project Learning Tree. American Forest Foundation, 2002.

Waste Away. Vermont Institute of Natural Science, 1989.

Virginia Department of Forestry website:
www.dof.state.va.us

Virginia Department of Conservation and Recreation website:
www.dcr.state.va.us

For information on Native Plants for Conservation, Restoration, & Landscaping:
www.dcr.state.va.us/dnh/native.htm

The National Arbor Day Foundation website:
www.arborday.org